
Equipment requirements

User telephones

A Message Center operator can activate a Message Waiting Indication at any of the following telephones:

- SL-1 telephones with MESSAGE WAITING key/lamp pair assigned
- 500 telephones (equipped with a Message Waiting lamp)
- 2500 telephones (equipped with a Message Waiting lamp)
- Standard SL-1, 500, or 2500 telephones with AMW

SL-1 telephones with Message Waiting key/lamp pair

A Message Waiting Indication is provided by a MESSAGE WAITING key lamp on the SL-1 telephone. The telephone can be a non-digit display or digit display telephone.

500 telephones

The 500 telephone is similar to the standard 500 dial telephone, except that the YR version has a neon lamp above and to the left of the dial. This light comes on during ringing in any type of call, but the Message Center operator can cause the neon lamp to flash in order to indicate that a message is waiting.

2500 telephones

The 2500 telephone is similar to the standard 2500 keypad telephone, except that the YQA version has a neon lamp above and to the left of the key pad. This lamp functions in the same way as that of a 500 telephone.

Standard 500/2500 and SL-1 telephones

Message Waiting Indication cannot be provided visually at these telephones. The user must call the Message Center by dialing the Message Center DN to check to see if there are any messages.

If the system is equipped with X11 Release 2 or later, AMW can be provided when the user goes off hook in the form of an interrupted dial tone (120 ipm). The user can then dial the Message Center DN and collect the message. In the case of the 500/2500 telephones, the interrupted dial tone form of message indication reduces the hardware requirements of the system. In the case of the SL-1 telephone, it makes an extra feature key available for other uses.

Message Waiting lamp requirements

If the neon bulb of a 500 or 2500 telephone needs to be replaced, customers should order replacements from Northern Telecom. The bulbs may be ordered using number A0250554. To avoid potential problems, bulbs must meet the following criteria:

- Ignition voltage: The bulb must light when a voltage of 90 ± 2 V dc is applied.
- Extinguishing voltage: The bulb must extinguish when the applied voltage is reduced to 60 ± 2 V dc.
- Power consumption: When a resistance of 30 K ohms is placed in series with the bulb, the power consumption of the bulb must be no more or less than 0.25 W when operated at 90 ± 2 V dc.

If the bulbs installed in a 500 or 2500 telephone do not meet the criteria listed above (for example, if resistance is higher than recommended), the system may see the bulb as being faulty and give a misleading indication to the Message Center operator or disable the feature, or both.

Message Center telephones

The following types of apparatus are suitable for use in a Message Center:

- 16-digit display SL-1 telephones
- 16-digit display attendant consoles

SL-1 telephones

ACD Message Center 16-digit display SL-1 telephones are recommended for use in an ACD-type Message Center. The ACD telephone is similar to the standard 16-digit display SL-1 telephone, but has provision for plugging one or two headsets into the telephone in place of a handset. The telephones should be equipped with MSG IN-CALLS, MSG INDIC, MSG CANC and NOT READY keys, in addition to other keys as required.

A plug-in 24 V transformer or QUT1 centralized power supply is required to power the digit display or any add-on modules, or both. See *Meridian 1 telephones description and specifications* for more information.

Other ACD features are described in Automatic Call Distribution basic features description.

DN Message Center The same SL-1 and ACD telephones used for an ACD Message Center can also be used for a DN-type Message Center. In this type of installation, the telephone should be equipped with an MC DN key instead of an MSG IN-CALLS key. The MSG INDIC, MSG CANC, and NOT READY keys are also required.

Attendant Consoles

The 16-digit display console is recommended for Message Center use, as with the 8-digit console, some truncation of digit display information can occur. The console(s) can be equipped with a MSG CENTER ICI key, to facilitate the control of a message indication at user telephones (although this is not required, since the Message Waiting Indication can be performed by direct access), as well as the MSG INDIC and MSG CANC keys.

Network Message Services

Network Message Services supports the following telephones:

- 500/2500 telephones
- SL-1 telephones
- Digital telephones
 - M2009
 - M2012
 - M2018
 - M2112
 - M2317
 - M3000
- Meridian Modular Telephones
 - M2006
 - M2008
 - M2016
 - M2216
 - M2616 (only as a Message Center)
- all attendant consoles

MWI Interworking

MWI Interworking requires the following equipment:

- Message Center for Meridian 1 system
 - Meridian Mail (requires Release 7 software)
- Centrex switches
 - DMS-100 (requires BCS 36 for interworking)
 - DMS-250
 - SL-100 (requires BCS 36)
- Local or remote switch
 - End to End in-band Signaling
- Call Forward All Calls, Call Forward No Answer, Call Forward Busy, and Hunting connections from Message Center subscriber to Message Center on another switch
 - Primary Rate Interface/ISDN Signaling Link (PRI/ISL) or Common Channel Signaling System (CCS) #7